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EXAMINER	
BAUER, CASSEY D	
ART UNIT	PAPER NUMBER
3784	

NOTIFICATION DATE	DELIVERY MODE
10/07/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/593,844	BAUER ET AL.	
	Examiner	Art Unit	
	CASSEY D. BAUER	3784	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 May 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *16-36* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *16-36* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The Amendment filed February 11, 2011 has been entered. Claims 16-36 remain pending in the current Application.

Claim Rejections - 35 USC § 112

Claims 16-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim element "means for switching" is a limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function. There is no explicit statement in the disclosure which would put one skilled in the art on notice as to which specific structures perform the claimed function. Further, the structure is not implicitly described in the specification. There is no single instance where the application clearly sets forth any structure associated with switching the mode of operation. There is disclosure of switches, controllers and regulators but no clear disclosure which links any of this structure to the function of switching the mode of operation and is unclear.

Applicant may:

(a) Amend the claim so that the claim limitation will no longer be interpreted as a limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, applicant should clarify the record by either:

(a) Amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) Stating on the record what the corresponding structure, material, or acts, which are implicitly or inherently set forth in the written description of the specification, perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 16-25, 27, 28, and 31-33 and 35 are rejected under 35 U.S.C. 103 (a) as being unpatentable over US 5,477,915 to Park, hereinafter referred to as Park in view of Us 5,485,732 to Locatelli, hereinafter referred to as Locatelli.

In reference to claim 16, Park and Locatelli disclose the claimed invention including:

Park teaches a refrigerating appliance, see figures 1 and 2, comprising:

at least two storage compartments (1, 2) thermally insulated from each other and from a surrounding area, see figure 2;

an evaporator (54), which can be cooled independently from an evaporator (60) of at least one other storage compartment, being associated-provided with each storage compartment; and

means for switching the mode of operation of at least one of the compartments between a freezing mode and a non-freezing mode (20, 30, 40, 35A, 45A) see column 2 lines 19-27 .

Park fails to teach wherein the evaporator from one of the compartments (54 or 60) comprises two evaporators connected in series. However, Locatelli teaches that it is known to provide an evaporator (1) in one compartment of a refrigerator comprising two evaporators (2 top and 2 middle) connected in series. Locatelli further teaches that providing rack type series evaporators achieves higher efficiency of the refrigeration circuit and keeps the temperature inside the refrigerator as uniform as possible, see column 1 lines 13-16. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the evaporator (60) so that it comprised two evaporators connected in series as taught by Locatelli in order to advantageously increase the efficiency of the refrigeration circuit and keep the temperature in side the compartment (2) as uniform as possible.

In reference to claim 17, Park and Locatelli disclose the claimed invention including:

wherein the means for switching the mode of operation also allow switching to a 0°C mode, see Park column 2 lines 19-27 “freezing”.

In reference to claim 18, Park and Locatelli disclose the claimed invention including:

wherein the means for switching the mode of operation are provided for the at least two compartments, (Park 20, 30, 35A for compartment 1 and 20, 40, 45A for compartment 2), see figure 1.

In reference to claims 19-24, Park and Locatelli disclose the claimed invention including:

Park fails to teach one or both of the evaporators being either a wire tube evaporator, a lateral wall evaporator, a no-frost evaporator, or a plate-type evaporator. However, the examiner takes official notice that it is well known in the art of refrigeration to provide an evaporator for a refrigerated compartment of a refrigerator designed as a wire tube evaporator, a lateral wall evaporator, a no-frost evaporator, or a plate-type evaporator. Since Applicant has not disclosed that having one or both of the evaporators being either a wire tube evaporator, a lateral wall evaporator, a no-frost evaporator, or a plate-type evaporator does anything more than provide predictable results and it appears that the refrigerator of Park would work equally well if the evaporators (54 and 60) were of any particular design as long as it provided a cooling effect and fit within the confines of the refrigerator case, it would have been a mere matter of obvious design choice to one having ordinary skill in the art at the time the invention was made, to modify the apparatus of Park so that one or more of the evaporators were either a wire tube evaporator, a lateral wall evaporator, a no-frost evaporator, or

a plate-type evaporator and meet the claimed limitations of claims 19-24 in order to provide predictable results.

In reference to claim 25, Park and Locatelli disclose the claimed invention including:

wherein the first and second compartments have insulation of substantially the same thickness, see Park figure 2.

In reference to claim 27, Park and Locatelli disclose the claimed invention including:

Park teaches at least one of the compartments (2) cannot be switched to a freezing mode, but fails to teach the compartment having a thinner insulation than the other of the compartments which can be switched to the freezing mode. However, the examiner takes official notice that it is well known in the art to provide a refrigeration compartment which does not have freezing capabilities with thinner insulation than a compartment which does have freezing capabilities. One skilled in the art would understand that the conductive heat transfer between the interior of the refrigerator and the exterior is dependent upon the temperature difference between the interior and exterior, one skilled in the art would understand that a compartment which is maintained a temperature nearer the external environment would not have as high of a conductive heat transfer rate and would therefore require less insulation than a compartment maintained as a much lower temperature. Further, one skilled in the art would understand that providing thinner insulation would advantageously reduce the cost of insulation and increase the capacity of the storage compartment. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was

made, to modify the apparatus of Park to include the non-freezing compartment having a thinner insulation than the other of the compartments which can be switched to the freezing mode in order to advantageously provide for cheaper insulation costs and effectively increase the capacity of the compartment.

In reference to claim 28, Park and Locatelli disclose the claimed invention including:

wherein a compressor (Par, 70) is installed in a recess made in one of the compartments (2), see Park figure 2.

In reference to claim 31, Park and Locatelli disclose the claimed invention including:

wherein the means for switching the mode of operation of at least one of the compartments between a freezing mode and a non-freezing mode includes a regulator (Park 30) and a selector switch (35A).

In reference to claim 32, Park and Locatelli disclose the claimed invention including:

further comprising a second regulator (40 Park) and a second selector switch (45A), wherein each of the compartments is associated with one of the regulators and selector switches to control the mode of operation within the compartment (30 and 35A for compartment 1 and 40 and 45A for compartment 2).

Claims 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park and Locatelli in view of US 5,377,498 to Cur et al., hereinafter referred to a Cur.

In reference to claim 26, Park, Locatelli and Cur disclose the claimed invention including:

Park teaches the first (1) and second compartments (2) have different volumes but fails to teach the compartments being operated in the same plurality of operating modes.

However, Cur teaches that it is a known method to provide a refrigerating apparatus with independently cooled storage compartments with a plurality of operating modes (-18C, 0C, 5C, see column 1 lines 44-68) and each compartment can be operating in the same plurality of operating modes. Further, one skilled in the art would understand that by providing both of the compartments of Park with the ability to switch between a refrigerating mode, a freezing mode and/or a heating mode, would advantageously increase the flexibility of the refrigerating apparatus. Since all claimed elements all claimed elements were known in the art and one having ordinary skill in the art could have combined the elements as claimed by known methods with no change in their respective functions and the combination would have yielded the predictable result of allowing each compartment of the refrigerator to be operable in a refrigerating, freezing and/or heating mode, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the apparatus of Park so that the compartments were operated in the same plurality of operating modes in order to advantageously increase the operability and flexibility of the refrigerator.

Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park and Locatelli in view of US 3,712,078 to Maynard et al., hereinafter referred to as Maynard.

In reference to claim 29, Park, Locatelli and Maynard disclose the claimed invention including:

Park fails to teach the compressor is installed in a socket unit.

However, Maynard teaches that it is a known method to provide a compressor unit (18) installed in a socket unit (10) of a refrigerator, see figure 1. Maynard further teaches that providing a compressor unit in a socket unit has a very substantial advantage from a manufacturing and servicing point of view, see column 1 lines 41-56. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the apparatus of Park to include the compressor installed in a socket unit as taught by Maynard in order to advantageously reduce manufacturing and service costs as taught by Maynard column 1 lines 41-56.

In reference to claim 30, Park, Locatelli and Maynard disclose the claimed invention including:

Park and Maynard disclose wherein the at least two compartments (1 and 2 of Park) are formed in a body which *can be* connected to the socket unit in at least one of a first orientation and a second orientation rotated 180° about a horizontal axis relative to the first orientation. The claim language of claim 30

merely requires that the body of Park can be connected to the socket unit of Maynard in a first and second orientation. Therefore, the cabinet of Park needs only to be capable of being connected to the socket unit of Maynard in a first and second orientation. Since the body of Park is perfectly capable of being connected to the socket of Maynard a first orientation and a second orientation rotated 180° about a horizontal axis relative to the first orientation, the combination of Park and Maynard meets the claimed limitations.

Claims 33, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park and Locatelli in view of EP 0541324 to Herbst et al., hereinafter referred to as Herbst.

In reference to claims 33 and 36, Park, Locatelli and Herbst disclose the claimed invention including:

Park teaches a refrigerating appliance, see figures 1 and 2, comprising:

at least two storage compartment (1, 2) thermally insulated from each other and from a surrounding area, see figure 1;

an evaporator (54), which can be cooled independently from an evaporator (60) of at least one other storage compartment, being provided with each storage compartment, wherein each of the storage compartments is operable in a plurality of operating modes of different temperatures, see abstract; and

a mode switch (35A) cooperable with the evaporator (54) and acting to switch the mode of operation of the compartments between the operating modes.

Park fails to teach the evaporators (54 and 60) of each of the storage compartments (1, 2) being connected in parallel to effect the independent cooling and wherein one of the evaporators from one of the compartments comprises two evaporators connected in series.

However, Locatelli teaches that it is known to provide an evaporator (1) in one compartment of a refrigerator comprising two evaporators (2 top and 2 middle) connected in series. Locatelli further teaches that providing rack type series evaporators achieves higher efficiency of the refrigeration circuit and keeps the temperature inside the refrigerator as uniform as possible, see column 1 lines 13-16. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the evaporator (60) so that it comprised two evaporators connected in series as taught by Locatelli in order to advantageously increase the efficiency of the refrigeration circuit and keep the temperature in side the compartment (2) as uniform as possible.

Further, Herbst teaches that it is a known method to provide the evaporators of a freezer compartment and the evaporators of the refrigerating compartment arranged in parallel to effect independent cooling of each compartment, see column 2 lines 36-46. Herbst further teaches that when using parallel evaporators in combination with a multiple effect compressor, energy can be saved because only the refrigerant necessary to cool the freezer is cycled

between the low level of the freezer evaporator outlet pressure and the high level of the compressor outlet pressure, see column 4 lines 37-46. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the apparatus of Herbst so that the evaporator (54) and evaporator (60) were connected in parallel to a multi effect compressor as described by Herbst, in order to advantageously save energy.

In reference to claim 35, Park, Locatelli and Herbst disclose the claimed invention including:

wherein the plurality of operating modes for each of the storage compartments are different, see Park column 2 lines 19-27.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park, Locatelli, Holtz, and Cur.

In reference to claim 34, Park, Locatelli, Herbst and Cur disclose the claimed invention:

The subject matter of claim 34 is substantially the same as the subject matter of claim 26 and has been addressed in the rejection of claim 26 above. See rejection of claim 26 above.

Response to Arguments

Applicant's arguments with respect to the rejection under 35 USC 112 second beginning on page 7 has been considered but is not persuasive. The examiner maintains that it is not clear from the specification which specific structure Applicant considers to perform the claimed switching function. There is no explicit statement in the disclosure which would put one skilled in the art on notice as to which specific structures perform the claimed function. Further, the structure is not implicitly described in the specification. There is no single instance where the application sets forth any structure for switching the mode of operation. There is disclosure of switches, controllers and regulators but no clear disclosure which links any of this structure to the function of switching the mode of operation. If Applicant believes that the specification provides an adequate disclosure which would put one skilled in the art on notice as to what structure corresponds to the claimed means for switching the mode of operation, the examiner requests that applicant specifically point out where in the disclosure the structure is disclosed which performs the claimed switching function. For at least these reasons the 35 USC 112 2nd paragraph rejection is proper and remains.

Applicant's arguments with respect to the examiner's characterization of defining the second section (54) as an evaporator which functions independently from evaporator (60) has been considered but is not found persuasive. These arguments are essentially the same arguments presented by Applicant in the remarks filed February 11, 2001 and addressed by the examiner in the final rejection mailed April 19, 2011. To summarize the examiner's position: Since refrigerant is evaporated in both section (52)

and (54) each section can indeed be independently defined as an individual evaporator. There is nothing in the claim language which would suggest that it is not appropriate for the examiner to define section (54) and only section (54) as one of the evaporators required by claim 1. Since the refrigerant exiting section (52) does not have to flow through section (54) the examiner believes that it is reasonable to interpret section (52) and section (54) as two separate evaporators arranged in series. When section (54) and only section (54) is defined as one of the claimed evaporators, evaporator (54) and evaporator (60) *can* indeed function independently from each other. Consider the following mode of operation: in valve (35A) P01 is closed and in valve (45A) P01 is open. In this mode of operation, evaporator (60) is cooled independently of evaporator (54). Consider the following mode of operation: in valve (35A) P01 is open and in valve (45A) P01 is closed. In this mode of operation, evaporator (54) is cooled independently of evaporator (60). Therefore, the evaporators can be cooled independently from each other and meets the claimed limitations. Therefore, the examiner asserts that the rejection of claim 16 is proper and remains.

With respect to Applciant's arguments that Park fails to teach the additional limitations of amended claims 16 and 33, the Locatelli reference has been utilized to teach the features not taught by Park.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CASSEY D. BAUER whose telephone number is (571)270-7113. The examiner can normally be reached on Monday -Thursday: 7-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on (571)272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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